

Serial No. 10/617,252

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 3-5, and 9, and AMEND claims 1, 10, 12-14 and 16-19, in accordance with the following:

1. (CURRENTLY AMENDED) An ink-jet printhead comprising:
a substrate which includes an ink chamber where ink is stored, nozzles through which ink in the ink chamber is ejected, and a plurality of pads which apply an electrical signal to the substrate to generate droplets in the ink chamber;
a flexible printed circuit (FPC) cable which includes a conductor corresponding to each of the pads, each conductor having bonding portions at front ends thereof; and
connection members which electrically connect the pads to the bonding portions,
wherein a connection member is bonded to a corresponding pad of the substrate and/or a corresponding bonding portion of the FPC by hot pressure welding.

2. (ORIGINAL) The printhead of claim 1, wherein the FPC includes a protection layer, protecting the conductor, having an opening through which the bonding portions are exposed is provided in the protection layer.

3-5. (CANCELED)

6. (ORIGINAL) The printhead of claim 2, wherein one end of each pad of the substrate and one end of each connection member are bonded to each other by hot pressure welding or soldering.

7. (ORIGINAL) The printhead of claim 2, wherein ends of the bonding portions of the FPC and the other end of each connection member are bonded to each other by hot pressure welding or soldering.

8. (ORIGINAL) The printhead of claim 2, wherein each connection member is

Serial No. 10/617,252

bonded to one end of each pad of the substrate and ends of the bonding portions of the FPC by hot pressure welding.

9. (CANCELED)

10. (CURRENTLY AMENDED) The ink-jet printhead according to claim 149, wherein the connection member is bonded to the bonding pad and the bonding portion by hot pressure welding.

11. (ORIGINAL) The ink-jet printhead according to claim 10, wherein the hot pressure welding employs a bonding tool and a thermal pressing method.

12. (CURRENTLY AMENDED) The ink-jet printhead according to claim 149, wherein the FPC comprises a cable surrounding the substrate.

13. (CURRENTLY AMENDED) The ink-jet printhead according to claim 149, further comprising nozzles on the substrate.

14. (CURRENTLY AMENDED) —An ink-jet printhead comprising:
a substrate including a first conductor having a bonding pad;
a Flexible Printed Circuit (FPC) having a second conductor having a bonding portion
corresponding to the bonding pad;
a connection member, wherein the connection member electrically connects the bonding
pad of the first conductor to the bonding portion of the second conductor and the connection
member is bonded to the bonding pad by hot pressure welding; and
The ink-jet printhead according to claim 9, further comprising upper and lower protection
layers protecting the second conductor.

15. (ORIGINAL) The ink-jet printhead according to claim 14, further comprising an opening in the upper protection layer through which the bonding portion is exposed.

16. (CURRENTLY AMENDED) The ink-jet printhead according to claim 149, wherein the connection member is substantially ribbon shaped.

Serial No. 10/617,252

17. (CURRENTLY AMENDED) The ink-jet printhead according to claim 149, wherein the connection member is perforated.
18. (CURRENTLY AMENDED) The ink-jet printhead according to claim 149, further comprising a plurality of connection members.
19. (CURRENTLY AMENDED) The ink-jet printhead according to claim 128, further comprising an insulating connection ribbon to fix the plurality of connection members in a parallel arrangement.
20. (WITHDRAWN) A method of fusing a connection member to a bonding pad of a substrate, comprising:
opening an opening in a protective layer above the bonding pad of the substrate; and
hot pressure welding the connection member to the bonding pad of the substrate.
21. (WITHDRAWN) The method according to claim 20, further comprising hot pressure welding the connection member to a bonding portion of a Flexible Printed Circuit (FPC).
22. (WITHDRAWN) The method according to claim 21, further comprising soldering the connection member to the bonding pad of the substrate and the bonding portion of the FPC.
23. (WITHDRAWN) The method according to claim 21, wherein the operation of opening comprises processing by an excimer laser.
24. (WITHDRAWN) The method according to claim 23, wherein the processing further comprises varying a pulse of the laser to prevent melting.
25. (WITHDRAWN) The method according to claim 23, wherein the processing further comprises using an interruptive method, the interruptive method comprising:
changing a pulse cycle of the laser; and
adjusting a time interval of the pulse of the laser.
26. (WITHDRAWN) The method according to claim 20, wherein the hot pressure

Serial No. 10/617,252

welding comprises:

- pressing a bonding tool on a welding object; and
- heating an electrical heating layer in a gap at an end of the bonding tool to approximately 300 – 500 degrees celcius.